

Northeast Region Fishing Forecast

Wisconsin's northeast region provides diverse, high quality and abundant angling opportunities. Region waters include a large portion of Lake Michigan; Lake Winnebago, Wisconsin's largest inland lake; Big Green Lake, Wisconsin's deepest inland lake; 1,000 small lakes; several large river systems including the Fox, Wolf, Oconto, Peshtigo and Menominee rivers; and more than 2,000 miles of trout streams.

Door County

Lake Michigan and Green Bay, including tributary streams

The Chinook is king! Long live the king! During summer 2005 there was little doubt that big lake anglers were experiencing the best stretch of chinook salmon fishing that Lake Michigan has been able to support. For the fourth summer in a row, chinook fishing on Lake Michigan was nothing short of phenomenal. However, all that glitters is not golden and there are early warning signs that this fishery might not be sustainable. Among the warning signs documented by Lake Michigan fisheries biologists were decreasing length and weight at age and a noticeable decline in the condition factor or relative plumpness of the chinook being caught by anglers and returning to spawning weirs. Concurrent with the warning signs in the chinook population there was evidence of a dramatic decline in the alewife population, the Lake Michigan forage base that supports the chinook fishery. Although it sounds counterintuitive, Lake Michigan fisheries biologists believe that the way to increase the odds of continued good chinook fishing is to stock fewer fish. To that end, the four states with management authority on Lake Michigan have agreed to stock 25 percent fewer chinook starting in the spring of 2006. Wisconsin's "share" of the stocking reduction will result in 21 percent fewer chinook stocked by Wisconsin hatcheries.

The growing imbalance developing between the Lake Michigan chinook population and the forage base that supports them is likely the result of increasing levels of naturalized chinook reproduction in Lake Michigan tributaries and emigration of chinook from Lake Huron. When chinook salmon were first stocked in Lake Michigan back in 1967, it was not anticipated that there would be any significant natural reproduction, but that has not been the case. Shortly after chinook were first stocked, a low level of chinook reproduction was documented and it has been steadily increasing. During the summer of 2004, Lake Michigan fisheries biologists were able to estimate that as many as 50 percent of the chinook in Lake Michigan were the result of natural reproduction. This increasing level of natural reproduction combined with the current lakewide level of stocking has resulted in more chinook in Lake Michigan than the alewife forage base can support. Because there is no control over the natural reproduction of chinook, the only way to reduce the demand on the forage base is to decrease the number of chinook stocked by the four states. We hope the planned lakewide reduction in chinook stocking will help restore the balance and keep the Chinook fishing strong in 2006 and beyond.

Other recent changes in the Lake Michigan fishery due to budget reductions include the elimination of brook trout stocking and a decrease in the number of brown trout fingerlings targeted for the big lake. Additionally, the department has had to reduce the projected quota of steelhead for stocking into Lake Michigan because of reduced flows at the Kettle Moraine Springs Hatchery.

Lake Michigan and Green Bay water level remains below average, and the U.S. Army Corps of Engineers is predicting the lake level to remain well below average into the first half of 2006. Because of this, many of the smaller boat launch access points will probably be unusable again this coming summer. Anglers planning to fish the lakeshore are advised to check with local municipalities before going to a particular launch. Many structures that were normally just below the water surface of Lake Michigan and Green Bay are now exposed and areas that were safe to transit in the past may have new obstructions lurking just below the surface. Lake Michigan and Green Bay boaters are advised to use caution when navigating unfamiliar waters. On a positive note, one new boat launch on Little Sturgeon Bay became available in 2005, improving boater access to this popular fishing area. Also in 2005, an improved boat ramp at Bues Point in

Moonlight Bay on the Lake Michigan side of the peninsula has improved access to that portion of Lake Michigan. Additionally, the boat launch at Old Stone Quarry at the mouth of Sturgeon Bay is being expanded and will include a harbor of safe refuge. This popular access site is scheduled for a mid-summer 2006 completion.

The low lake level and low stream flow impacted salmon runs in the fall of 2005. Without the 3/4-mile long pipeline installed by state fisheries crews in 2000, chinook egg harvest at Strawberry Creek would have been difficult. The pipeline delivers 1,500 gallons of water per minute to supplement the flow of Strawberry Creek during the spawning run. This assures that in coming years the Lake Michigan chinook salmon program will not be in jeopardy due to low flow and low water levels.

The low lake and bay level also affect access of trout and salmon into Door County's tributary streams. Whitefish Bay and Heins creeks are stocked annually with steelhead. Runs of adult steelhead and other trout and salmon into these and other Door County tributary streams in spring and fall depend heavily on the amount of runoff from snow-melt and rain. If our streams have adequate flow they can provide some exciting opportunities.

Smallmouth bass populations along the Door County shoreline remain strong and should provide exciting fishing in 2006. The strong 1995 year-class of smallmouth will continue to provide abundant fish in excess of 18 inches. Trophy-sized fish above 20 inches from the 1995 and older year-classes are not uncommon. The jury is still out on what impact the recent invasion of round goby might mean for smallmouth in Door County waters. Studies have revealed a double-edged sword. Gobies are known to be voracious smallmouth bass nest predators, especially when adult males guarding the nest are caught. Conversely, adult bass have adapted to include gobies in their diet. To date we continue to have adequate smallmouth recruitment.

Walleye populations in and around Sturgeon Bay/Little Sturgeon Bay received important supplemental stocking in 2003 and 2004 as nearly 425,000 walleye fingerlings were divided between the two bays. This walleye stocking effort should help establish two good year-classes of walleye, which should be available to anglers for several years to come.

Great Lakes spotted musky have been stocked for four consecutive years in the Sturgeon Bay area now. Nearly 18,000 large fingerlings and over 200 yearlings have been stocked in Little Sturgeon and Sturgeon Bay. This expanded musky stocking is part of the decade-long effort to re-establish reproducing populations of this native species in Green Bay. Bragging-size muskies have already been reported caught in Green Bay in recent years, adding to the already sizable mixed bag of sport fish available in the Lake Michigan and Green Bay waters around Door County. Fishing for northern pike should continue to provide good action for both open water and ice anglers. - *Paul Peeters, fisheries biologist, Sturgeon Bay*

Manitowoc County

Lake Michigan and tributary streams

Following the spring melt, tributary fishing can provide a variety of fishing opportunities along the lakeshore. At this time of year, anglers can hook steelhead, brown trout or northern pike in many Lake Michigan tributaries. Fishing in harbors and off piers can be very productive with anglers harvesting a variety of species. Anglers looking for a different fishing experience may want to try dip-netting suckers or smelt as these fish migrate upstream.

Summer should once again see anglers catching good numbers of Lake Michigan trout and salmon. For those anglers willing to travel further offshore, steelhead angling can be exciting if favorable wind and water temperature conditions exist. If conditions don't permit fishing on Lake Michigan, try fishing for smallmouth bass in the larger rivers. Populations are very good and fishing can be productive.

As summer ends and fall begins, fishing near shore and off piers should be very good with mixed catches of chinook salmon, domestic rainbow trout and brown trout. With the onset of fall, salmon spawning migrations begin and if stream flows are good, fishing should be excellent in the Manitowoc, East and West Twin and Kewaunee rivers. For a little more solitude, try fishing smaller streams such as Stony, Silver and Fischer creeks. -*Steve Hogler, fisheries biologist, Mishicot*

Inland waters of Calumet, Door, Kewaunee and Manitowoc counties

A variety of fishing opportunities exist in the inland lakes and rivers found in these counties. Northern pike and panfish anglers should have good success in catching these fish during the ice-fishing season on local lakes. Anglers also may target large northern pike on local tributary streams during late winter, but anyone doing so should use extreme care when fishing on these streams. Walleye and yellow perch are always a good bet early in the open water season, with largemouth bass and bluegill fishing improving as the water warms in late May. Surveys completed on a number of lakes in Door and Manitowoc counties the past several years have shown that local fish populations are doing well in these lakes.

In Manitowoc County, at Walla Hi County Park, work is continuing on a stream restoration project that has removed several remnant dams and structures from the grounds of a former hatchery. Future work includes restoring a more natural stream channel to Millhome Creek, a stream that supports native brook trout. Following the completion of the project it is hoped that anglers will enjoy improved fishing for brook trout at this scenic location.- *Steve Hogler, fisheries biologist, Mishicot*

Winnebago System

(Wolf and upper Fox Rivers, Lakes Winnebago, Butte des Morts, Winneconne and Poygan)

In March 2005, it was anybody's guess what water levels would be on the Winnebago system for spring walleye spawning. Snow pack in the northern part of the Wolf's watershed was adequate but not abundant. What snow there was in the upper Fox watershed melted quickly, flooding some of the marshes but with very little flow across them. In addition, unseasonably warm weather caused walleye to "hurry up and git 'er dun!"

On the Wolf River, almost all of the walleye spawning began, peaked and was over within six days from April 5-10. This was a week or more earlier than usual. A small number of fish were tagged on the upper Fox and Lake Winnebago as well, but the vast majority again came on the Wolf.



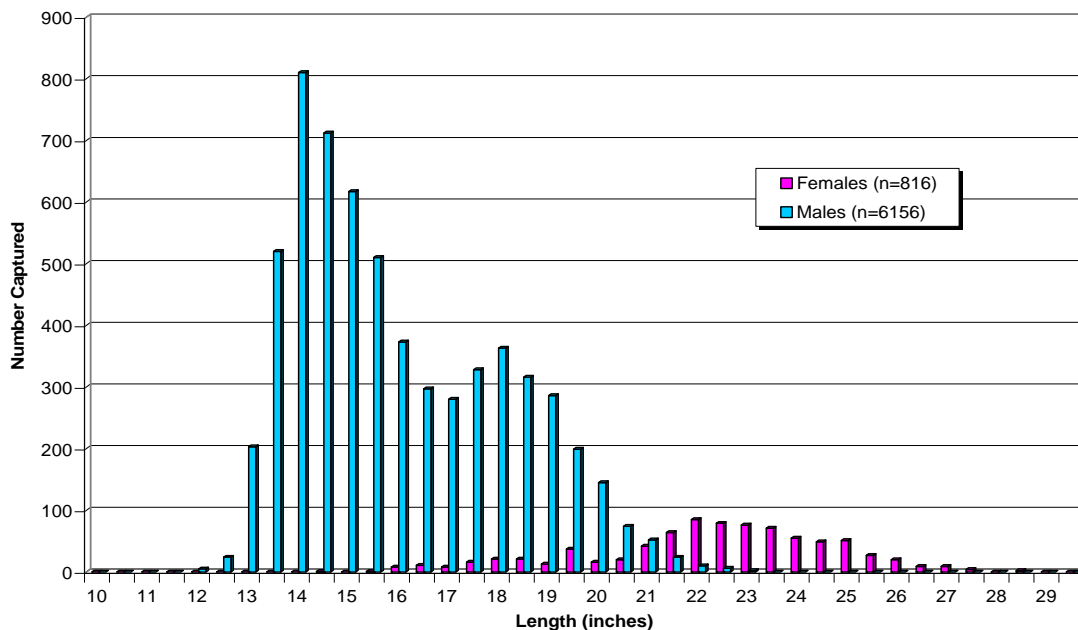
Spring walleye tagging

Spring walleye tagging on the upper Fox and Wolf rivers

DNR crews, aided by numerous volunteers, captured and tagged more than 7,200 walleye (6,294 males, 837 females and 98 unknown) from around the system. Males ranged from 12 to 22.1 inches, with an average size of 16.3 inches and 1.6 pounds, identical to last year. Twenty-five percent of the males were 17.5 inches or larger! Fifty-five percent of the males were less than 16 inches, due to the number of fish from the large 2001 year-class. The males from that group can be seen by the peak on the following graph at 14 to 15 inches. These males from 2001 make up a significant portion of the male spawners and will for a number of years.

Females in 2005 ranged from 14.9 to 28.6 inches with an average of 22.4 inches and 4.6 pounds, also very similar to last year. Judging by the lack of small females tagged in 2005, it would appear the 2001 females were not quite mature yet. It should be a different story this spring as they had another summer to grow and should be up on the marshes in good numbers. Currently the female spawning stock is made up of mostly medium-sized females 21 to 25 inches. These are 7- to 10-year-old fish from the mid- to late 1990s year-classes. About a quarter of the females up spawning in 2005 were less than 21 inches, while 15 percent were 25 inches or larger.

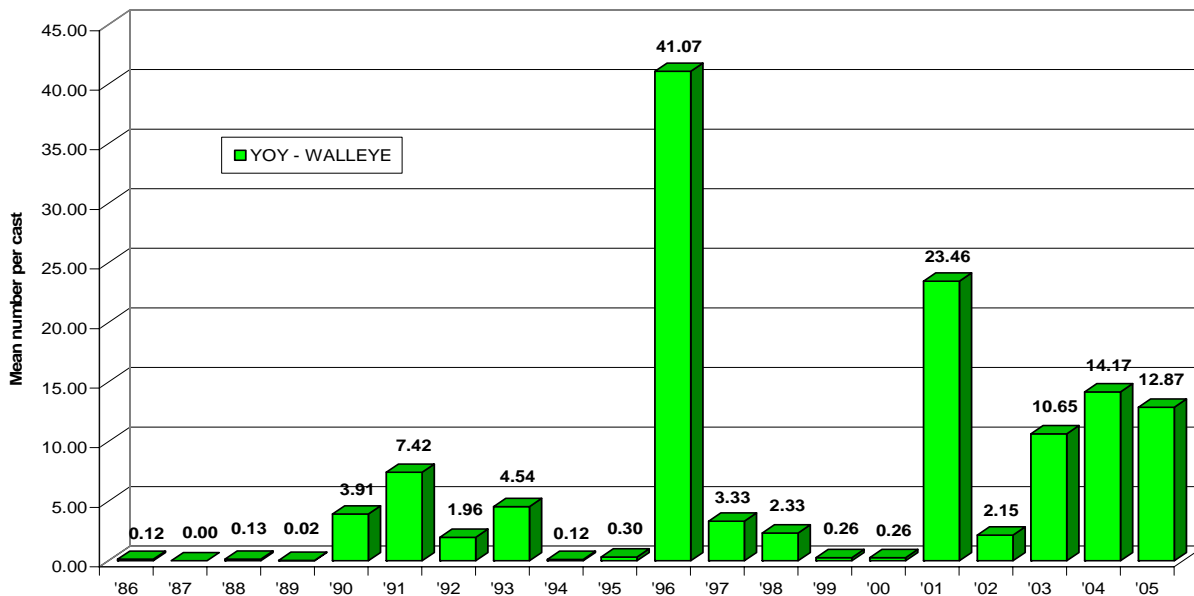
Walleye Length Frequency Winnebago System - Spring 2005



Index trawling in August 2005 again showed a good food base, perhaps too good as anglers complained about slowed action when mid-summer arrived. Major forage items include young-of-year drum (average size hatch similar to 2004) white bass (up 40 percent from 2004 but still about average), gizzard shad (*way* up over 2004; fifth-largest recorded), and trout perch or “grounders” (still abundant, similar to 2004). And of most interest to walleye anglers is another big year-class of walleye, the fourth largest on record. Three of the five largest hatches have occurred consecutively since 2003, putting us up to our rod tips in younger walleye, meaning fishing should be good to great for at least the next 10 years!

Walleye Yearclass Strength

Lake Winnebago 1986 - 2005



Anglers looking to take home a tasty meal from this excellent walleye population in 2006 can expect good numbers of medium-sized walleye to be in the rivers in April for the annual spawning run, along with an increase in small females (17 to 19 inches) from the 2001 year-class, as well as a fair number of the large old females. During the run, work a jig and minnow off the bottom in the current line or off to the side of it while anchored or drifting. In May and early June, work the shorelines and reefs with stick-type crank baits or a slip bobber with minnow or leech. When the water warms to summer temperatures, it's time to head out to "the mud." Use your graph to locate loose schools of fish in open water 15 feet or greater. Troll crank baits or crawler harnesses on planer boards at various depths to locate active fish. Don't overlook bait shops or various Internet sites to get the most current fishing information. Remember to promptly report any tagged fish to the nearest DNR office.

Bass - Largemouth and smallmouth bass continue to be relatively abundant throughout the system as well. Based on lengths and weights collected by DNR and tournament sponsors in 2005, largemouth ranged from 14 to 21 inches, and smallmouth from 14 to 20 inches. The majority of the largemouths seen at the tournaments are in the 14- to 16-inch range (79 percent of the largemouth measured at the events were less than 16 inches). Despite their smaller length, they're not skinny. Based on data gathered at a June event, a 15-inch largemouth averaged about 2 pounds, and 18-inch fish were just over 3 pounds. Bigger fish are present but are seen in small numbers at tournaments. They present a real challenge in locating one. Despite the smaller size structure of the population, with a little effort and, as always patience, bass anglers should be able to keep busy with some "bucket mouth" action. Look for largemouth in the channels and protected bays on the lakes, and in the marshy areas and bayous on the lower rivers. Traditional bass baits and methods work well, especially plastics. Anglers are reminded to maneuver gently around all vegetation on the system, as it is valuable habitat.

Smallmouths are more common in the upper rivers near faster current and rock or gravel areas. Don't overlook the Little Wolf and Embarrass rivers. Both offer some good summer bronze back action. Smallies have also really taken off on Lake Winnebago in the last few years as well. They can be found along rock/gravel shorelines and particularly on the offshore reefs along the west side of the lake. Work a jig tipped with a leech in these areas or troll the edge of the reefs with a crankbait or crawler harness. Both are productive methods.

Northern pike and... Musky? - Due to other commitments we were not able to do any northern pike assessment in 2005. However, the system continues to have good numbers of pike in it, both in the upper lakes of Poygan, Winneconne and Butte des Morts and in Winnebago as well. While not known as “musky water,” there is a small but self-sustaining population of true musky in the Winnebago system, particularly in the upper lakes. However, anglers may be surprised to see an increase in smaller muskies showing up on the end of their lines in 2006. Stocking of Great Lakes strain, or spotted muskies, began in 2002 and has continued since then. Since 2002, 426,550 fry and 14,608 fingerlings have been stocked into Butte des Morts, Poygan and Partridge lakes. The spotted, or great lakes, strain was what was originally in the system. They became extirpated as other musky strains were stocked over the years, with limited success. In late November 2004 about 25 or 30 of the spotted were captured while seining for sturgeon on the upriver lakes. At that time, they were all 29 or 30 inches, and many had a fin clip, identifying them from the 2002 stocking. The fish were in excellent shape and growing very well. Having grown another year since then, it’s likely these fish are now in the low to mid-30 inch range.

Anglers seeking to ply the water for either of these aquatic bruisers should concentrate their efforts around the more vegetated areas, such as quieter bays and channels, off-shore weed beds (submerged and emergent) and reefs that offer quick access to deeper water and abundant forage. May and June offer the best action, but diligence can pay off at other times of the year as well. Plugs and bucktails in darker colors are a good choice for on the system’s more turbid water. Top-water plugs near weed beds or reefs on quiet evenings and nights may also produce some action, especially earlier in the season as forage is less abundant. Anglers are asked to practice catch and release until this population gets well established. For the angler who prefers “hard water,” northern pike are especially active in early winter just after ice up. Panfish congregate in shallower areas near what remains of submerged summer weed beds for food and cover. Northerns prowl these areas for a meal. Tip-ups set with large shiners on the edges are likely to produce some good action.



2002 stocked spotted musky captured in Lake Butte des Morts, Nov. 30, 2004

Panfish and white bass - Anglers seeking a meal of fresh bluegill or perch should look in some of the quieter bays, channels and river bayous around the Winnebago system. Bluegill populations have benefited from the increase of rooted aquatic vegetation over the last few years. Panfish “specialists” are reporting good success but are tight-lipped on specific locations. Good areas to start are Sunset Bay and inside the breakwall at Terrell’s Island on Lake Butte des Morts, Boom Bay and Page’s Slough on Lake Poygan and the numerous bays and channels along the west shore of Lake Winnebago. Perch have also benefited from the increased vegetation on the system as it offers hiding places for young perch to avoid predators, allowing more of them to get to a larger size. The perch year-class in 2005 was down from the previous two years but still respectable. Work the numerous reefs, underwater humps and areas of transition from rock/gravel to mud for perch. They can be very finicky from day to day, and even hour to hour. Mobility and varying presentations are the keys to success on these big waters. Finally, for anglers liking fast action or something to keep kids interested, you can’t beat the annual run of white bass on the Wolf and upper Fox rivers. Typically occurring in mid-May, the rivers are teaming with spawning white bass. It is not unheard of to get two at once on a single pole rigged with a dropper line. Most any flashy spoon or spinner will work. Also, try some of the streamer flies available at various local bait shops in a variety of colors. Access along the rivers is plentiful. Good shore fishing opportunities are present in Winneconne, Fremont, Gill’s Landing east of Weyauwega on the Wolf and Oshkosh, Omro and Eureka on the upper Fox. Schools of feeding white bass also provide good action in the open water on the lakes through the summer as well. Look for schools of minnows breaking water and cast into the spot. It’s likely a feeding school of white bass.- *Kendall Kamke, senior fisheries biologist, Oshkosh*



Three nice walleye tagged during a spring walleye assessment on the Wolf River.



Typical walleye spawning marsh on the Wolf River in April.



Fishing on the upper Fox River, Winnebago system.

Green Lake County

Big Green Lake

Wisconsin's deepest inland lake provides a variety of opportunities for both warm and coldwater species. Protection and improvement of fragile shallow water areas has improved spawning habitat for northern pike, largemouth bass and panfish species. Smallmouth bass continue to thrive in this lake filled with rocky shoreline habitat, and improvements in water clarity and vegetation management has helped to keep the low-density walleye population an important part of this fishery. A small number of musky have historically been stocked by local musky clubs. These fish have been showing up in surveys and anglers' incidental catches. Musky anglers have expressed interest in this addition to the fishery and we have added them to the annual stocking quotas in very low densities to be managed as a trophy fishery.

The coldwater trout fishery, made up of lake trout and Seeforellen brown trout, is sustained by stocking. Both species provide excellent action in open water or through the ice. The lake trout population continues to thrive while the Seeforellen are in their infancy as a great addition to this unique coldwater fishery. Densities are low, but fish up to 10 pounds have been reported. The lake also contains a healthy inland cisco population.

Lake Puckaway

The 32-inch minimum size limit and bag of one for northern pike continues to provide a high density northern pike fishery. Catch rates can be extremely high with many fish in the upper-20 to low-30-inch size range, although more legal fish have been showing up in surveys and reported in anglers' catches. Walleye populations in the lake and river remain healthy and should continue to provide excellent action from spring ice out through the following ice fishing season. Fall surveys did show large numbers of gizzard shad, which no doubt will play a role in the fishing success for these species. Largemouth bass and panfish appear to be at lower densities but do exhibit excellent growth rates and size structure. Improvements to habitat again are the key to helping out these species.

Little Green Lake

This productive body of water has always been noted for its healthy panfish populations. Improvements in water quality and aquatic plant management have helped these panfish to thrive. Bluegill, black crappie and perch should continue to contribute to the anglers' creel. Walleye populations remain healthy and are supported by DNR and local club stocking efforts. The musky fishery, which is also maintained by stocking, annually provides for one of southern Wisconsin's best musky lakes and continues to produce fish in the 40-plus inch range.

Fox River System

This large productive river system is home to walleye, small and largemouth bass, northern pike and panfish species. Dam removals in recent years have helped to improve habitat and have created a barrier-free stretch of river for these fish to inhabit. Channel catfish populations remain high and are one of the most sought-after species on this system. Flathead populations seem to be stable and should improve with the new bag and possession limit. Survey information has showed that it takes, on average, 10 years to reach 30 inches and nearly 20 years to reach 40 inches. Both catfish species continue to grow in popularity and we will continue to monitor their populations.

Marquette and Waushara counties

These counties contain a good number of small pothole lakes, most of which are highly developed but do provide good public access. Most contain good populations of largemouth bass and panfish although some may contain small numbers of walleye maintained by stocking. Low density populations of northern pike are also present in some lakes. A few of these small lakes contain high-density, slow-growing populations of largemouth bass and low-density bluegill populations. We have been trying to improve this situation by eliminating the 14-inch size limit. The hope is that by reducing bass numbers, growth rates will improve for largemouth and panfish numbers will increase to better balance the fishery. Improvements in aquatic plant

management and nearshore habitat protection also continue to play an important role in the health of these lakes and improvements to the lake fishery.

This part of the state provides for some of the best trout fishing anywhere. Healthy populations of naturally reproducing brown brook and rainbow trout, combined with specific regulations, provide for a variety of trout fishing opportunities. Miles of public ownership, along with numerous road crossings, provide good access to most streams. As always, ask permission to access private land. Any questions regarding this report can be addressed to (608) 297-7058. - *David Bartz, fisheries biologist, Montello*

Marinette County

Preliminary results from a comprehensive lake survey on High Falls Reservoir in spring 2005 show a very healthy fishery supporting a wide range of game fish and panfish species. Walleye, largemouth bass, smallmouth bass and northern pike were all sampled in good numbers and indicated good size ranges. The muskellunge population looks very healthy, with the largest fish surveyed at 51.5 inches and several other large muskies also collected. There also appears to be a healthy fishery for bluegill and black crappie, with good numbers and size structure. The yellow perch population, however, appears to be small in its size structure. During 2005, we continued our cooperative effort with the Peshtigo River Sportsman's Society to stock walleye fry into High Falls Reservoir. Eggs were collected by DNR during the spring survey and provided to the club whose members raised them in their walleye wagon and released about 500,000 fry back into the reservoir. Wisconsin Public Service, the utility company that owns the dams creating the High Falls and Johnson Falls reservoirs, drew water levels down 12 feet in both reservoirs in 2005 for dam repairs. Water levels should be back to normal before the 2006 open water fishing season begins, and we are not expecting any major impacts to the fisheries as a result of these draw downs.

Preliminary results from a comprehensive survey on Hilbert Lake indicate a low-density, high-quality walleye population consistent with that of a stocked population. The majority were legal size or larger with no sign of natural reproduction occurring in this lake. The largemouth bass population appears to have good numbers and size structure. We also noted good numbers of northern pike and smallmouth bass. Panfish were numerous and of a good size, particularly bluegill and black crappies.

During summer and fall 2005, baseline lake surveys were carried out on Johnson Falls Flowage, Reservoir Pond, White Rapids Flowage, Caldron Falls Flowage, Beecher Lake, Big and Little Newton lakes. Initial review of the data revealed that White Rapids has a very healthy fishery supporting walleye, bass, and several panfish species. Reservoir Pond also had a healthy bass population and many panfish, although panfish tended to be small. A complete analysis and lake survey results will be available in spring 2006 on DNR's Web site.

During 2005, the Bass Lake Association built submerged fish cribs that were installed with our help. Small pine trees were also dropped into the lake with the aid of DNR to help provide more fish habitat. DNR received necessary permits in 2005 for the placement of a walleye spawning reef into Bass Lake. The reef will be placed into the lake along the shore of National Forest Land. Permission from the U.S. Forest Service has been gained for the completion of this project. We believe the reef will be built over the ice in 2006. The funding sources for the reef project are DNR, the U.S. Fish and Wildlife Service, and the Bass Lake Association.

Trout stream surveys on the Upper Middle Inlet Creek, North Branch of the Beaver Creek and K C Creek indicate healthy trout populations. Final results will be available in spring 2006 on DNR's Web site. In 2006, we will be conducting a comprehensive spring lake survey on Caldron Falls Reservoir, and summer/fall baseline lake surveys on Bagley Flowage, Peshtigo Flowage, Chalk Hills Flowage, and Gilas Lake.

We cooperated with Michigan's Department of Natural Resources and U.S. Fish and Wildlife Service in a three-day survey of the lake sturgeon population below White Rapids dam on the Menominee River. We captured and released 312 sturgeon, with an average length of 33 inches compared to an average length of 49 inches in sturgeon surveyed below the Menominee Dam, the lowest dam on the river with a direct link to Green

Bay. The fish ranged from 15 to 60 inches and only 11 sturgeon were more than 50 inches. We anticipate conducting a similar survey below Grand Rapids dam in 2006.

Oconto County

Projects to remove the Hemlock and Knowles dams from the North Branch of the Oconto River continued in 2005 with further restoration of the two sites where dams were removed in 2004. At the former Knowles Dam, 50 boulders and 12 digger logs were distributed over a 1,000-foot section of river upstream of the old dam location. That project was finished with seeding and mulching of adjacent river banks. At the former Hemlock Dam, a sand trap was cleaned out, boulders and digger logs were distributed throughout a 700-foot section along the banks downstream of the old dam location. The new stream thalweg was established downstream with the removal of excess cobble. The thalweg is the part that has the maximum velocity and causes cutbanks and channel migration. This cobble was moved and located along the stream bank to create a new point bar. As the new stream thalweg was established, 100 boulders and 25 digger logs were distributed into the river channel. The banks along the river were regraded where needed, then seeded and mulched. The completion of the Hemlock site will take place in 2006, when a geoweb pad used for heavy machinery access to the river will be removed. Once the pad is removed, a small wetland will be restored to comply with DNR regulations. Continuous temperature loggers were deployed in 2005 and will continue to be deployed in 2006 to monitor the river water temperatures and to evaluate any difference before and after removal of the dams. This project was conducted in conjunction with the U.S. Forest Service and additional funding was provided by local chapters of Trout Unlimited.

In August 2005, DNR replaced two culverts on Swede John Creek and established a new stream channel. The creek had a chronic problem of washing out and the old culverts were creating fish passage issues. The new culverts installed were larger and placed in at the correct height so as not to impede fish passage. In addition, a 160-foot section of the stream channel was diverted away from the shoulder of the roadway where erosion was becoming a problem. The new stream channel will be armored with stone to prevent down-cutting and provide a better substrate for fish and aquatic invertebrates. This project will be completed during summer 2006 when specialized equipment for working on soft terrain can be brought in to install additional stone. The Town of Silver Cliff provided labor and materials to help with this project.

The South Branch of the Oconto River feral trout stocking project continued in 2005. DNR worked cooperatively with the Oconto River Watershed Chapter of Trout Unlimited and the Suring Sportsman's Club to raise wild brook and brown trout for stocking into the Oconto River (as well both South and North branches of that river). No brook trout were stocked out in 2005. However, 25,000 large fingerling brown trout were stocked during fall 2005. DNR crews also shocked and captured wild brook and brown trout for egg collections in the fall 2005. About 3,100 brook and 7,200 brown trout eggs were collected and will be reared at the Trout Unlimited Underhill facility.

A trout population estimate survey was carried out on the South Branch of the Oconto River, with preliminary information suggesting good trout population numbers. Final survey results will be available spring 2006 on the DNR Web site.

During 2005, baseline stream surveys were carried out at several sites on the Lower North Branch of the Oconto River Watershed covering portions of Oconto and Forest counties. A total of 29 streams were electroshocked, including several trout streams. The results for the entire watershed survey will be available spring 2006 on DNR's Web site. Many of the streams surveyed were facing low water levels and higher than normal water temperatures during summer 2005, which was warmer and drier than normal. However, many of the trout streams surveyed were spring-fed and showed very good brook trout reproduction.

During the summer and fall of 2005 baseline lake surveys were also carried out on Reservoir Pond, Maiden Lake, and Christie Lake, survey results will be available the spring of 2006 on DNR's Web site.

In 2006 we will conduct comprehensive spring lake surveys on Maiden and Christie lakes. Summer and fall baseline lake surveys will be conducted on Oconto Falls Pond, Archibald Lake, Lee Flowage, Bear Paw Lake, White Lake, Underwood Lake and Half-Moon Lake. - *Justine Hasz, senior fisheries biologist, Peshtigo*

Brown County

Lower Fox River and southern Green Bay

We completed three targeted fishing surveys on the Fox River and lower Green Bay in 2005. These surveys were a spring muskellunge survey in the Fox River, late summer/fall electrofishing surveys on southern Green Bay and the Fox River, and a fall electrofishing survey on the Fox River. These surveys allow us to monitor important walleye and musky fisheries in these areas and provide related information on other captured fish species.

The Great Lakes muskellunge reintroduction program continues to grow and excite musky anglers. We captured 79 muskellunge during our 2005 spring survey. These fished ranged from 12 to 50 inches (average 38.5 inches) and up to 40 pounds. We also collected eggs and milt for transfer to the Wild Rose State Hatchery and later stocking of progeny into Green Bay and its tributaries.

Our southern Green Bay and lower Fox River index shocking turned up a below-average amount of young-of-the-year walleye, indicating that a poor year-class was produced during 2005. However, the abundance of adult walleye from our fall surveys indicates that walleye fishing should be excellent on the Fox River and Green Bay during 2006 and beyond.

We performed a good sampling effort with more than 800 walleye last fall or about 60 fish per mile of shoreline sampled. Walleye ranged from 8 to 26 inches and averaged about 16.5 inches. We also observed an incredible number of gizzard shad in the Fox River this fall. Shad abundance presumably made fall fishing difficult, even though good numbers of adult walleye were present in the river. Fall fishing was slow during 2005 but not for a lack of muskellunge. We attribute this to the abundance of gizzard shad observed during fish surveys. We captured 42 musky during fall electrofishing surveys on the Fox River, 26 during our river index and 16 while targeting muskellunge. Muskellunge ranged from 12 to 45 inches, with an average of 32 inches. Green Bay and its tributaries will once again provide ample musky fishing opportunities with true trophy potential during 2006. Anglers are reminded that the minimum size limit for these fish is 50 inches.

Many other fishing opportunities exist on the Fox River and southern Green Bay. Anglers successfully target northern pike and yellow perch during spring and smallmouth bass and catfish during summer. During May and June, fishing in the shallow nearshore areas for large drum, channel catfish, and carp is very effective and a great way to get kids interested in fishing—lots of action with some huge fish! Cool fall waters can provide a mixed catch including walleye, chinook salmon, musky, or even whitefish.

Anglers catching and keeping tagged fish are asked return the tag and fishing information (date, location, water temperature, fish length, weight, etc.) to the address on the tag. Anglers that practice catch and release should leave the tag in the fish, note the tag number, and send the information to the address on the tag, give us a call at (920) 662-5480, or send an e-mail to Kevin.Kapuscinski@dnr.state.wi.us. The information we collect from anglers through tag returns is vital to effectively manage the fishery. -*Rod Lange, fisheries technician, and Kevin Kapuscinski, fisheries biologist, Green Bay*

Marinette and Oconto counties

Outlying waters of Green Bay

Summer trawling surveys for yellow perch in Green Bay indicated another good year-class was produced in 2005, following good year-classes produced in 2002 and 2004 and an excellent year-class in 2003. This is good news for anglers, as the Natural Resources Board in December increased sport bag limits to 15 starting May 20, 2006.

Due to the high numbers produced in 2003, average growth of fish from that year-class was below average at age one (4.1 inches) and continued to be below average at age 2 (5.9 inches, range 4.3-8.8 inches). Due to increased production over the past few years and those recent year-classes entering the fishery, yellow perch fishing has started to improve and sport harvest has increased in Green Bay. Data collected during the 2005 summer creel survey revealed that 63 percent of the sport harvest were fish from the 2003 year-class and 25 percent from the 2002 year-class. A majority of the perch caught (80 percent) were between 7 and 10 inches and a few fish (5 percent) were 11 to 13 inches. Most of these fish were 7-year-old fish produced in 1998. We believe that continued successful production of yellow perch should yield good fishing in 2006.

We implemented a very intensive effort in 2005 to survey the lake sturgeon population in the lower Menominee River during seven events from July through October. We caught and tagged 278 sturgeon with an average size of 49 inches. The fall hook and line fishery produced 136 lake sturgeon from 50 to 65 inches in the lower Menominee river compared to 155 in 2003. We interviewed more than 100 anglers during the fall season and found general approval of the season and harvest. Finally, we inserted ultrasonic transmitters into 14 adult sturgeon and we'll track their movements between the Menominee and Peshtigo rivers for the next year.

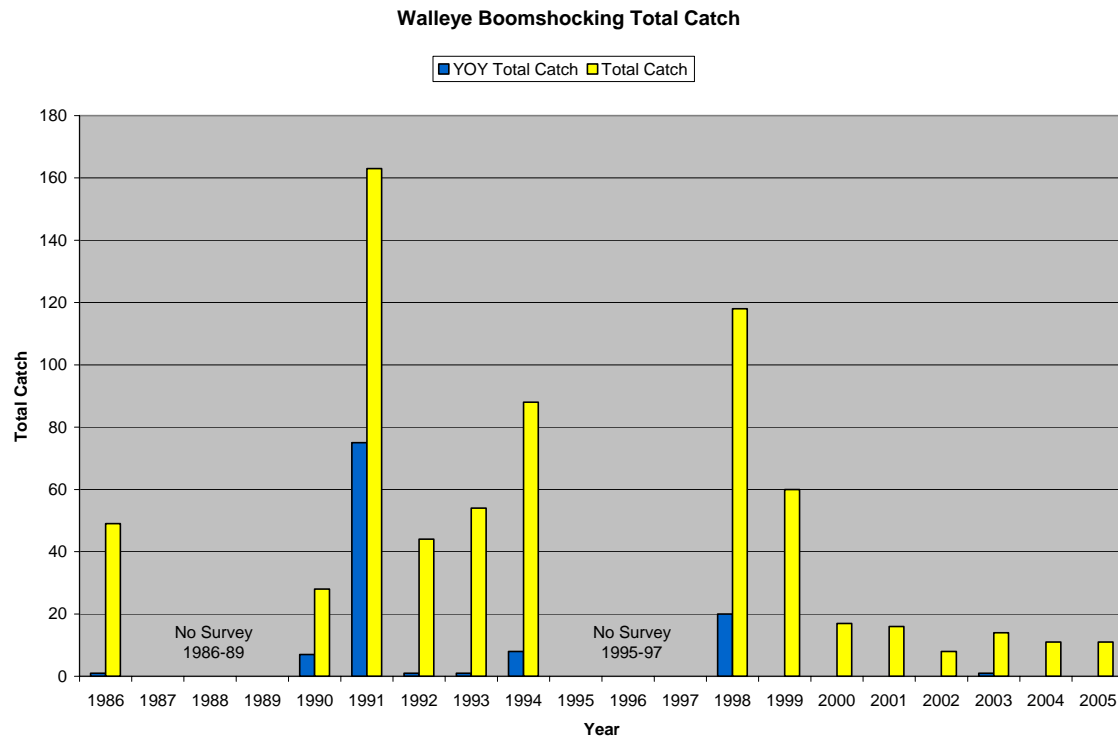
Fall 2005 brown trout brood stock collections in the Menominee River found higher numbers of adult fish returning to the river than in the previous three years. Most of the brown trout returning were Seeforellen strain stocked by DNR in 2002, 2003 and 2004. The average size of returning fish was around 25 inches and the largest brown trout captured was 31 inches long. The higher number returning supports angler reports of increased catch rates in Green Bay. Large numbers of chinook salmon, walleye, and whitefish were also observed during the fall brown trout collections. Walleye fishing in the Menominee River and surrounding area of Green Bay has been good for the past few years and should continue based on the numbers seen this fall.

DNR continued efforts to restore the spotted muskellunge population in Green Bay by stocking fingerling and yearling fish into the Menominee and Peshtigo rivers in 2005. All of the yearling muskellunge stocked are tagged to monitor movement patterns and growth of individual fish. Anglers have reported catching tagged fish from the Menominee River in the 30- and 40-inch range with one fish reported at 48 inches. Anglers catching tagged fish are asked to note the tag number and fishing information (date, location, water temp, length, weight, etc.) and send the information to the address on the tag, call (715) 582-5052, or e-mail Matthew.Mangan@dnr.state.wi.us. The minimum length limit is 50 inches with a daily bag limit of one. - *Matt Mangan, fisheries biologist, Mike Donofrio, fisheries supervisor, Peshtigo*

Waupaca and Shawano counties

Shawano Lake

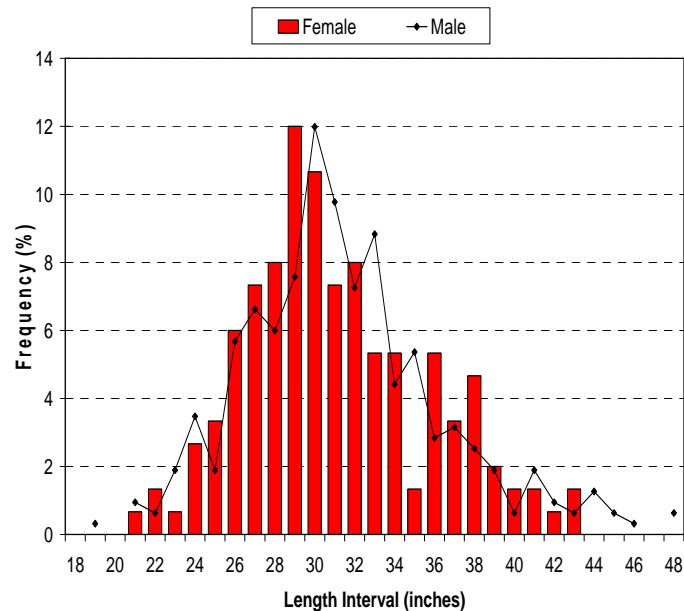
Fall boomshocking surveys captured good numbers of largemouth bass ranging from 2.8 to 19.9 inches with an average size of 11.3 inches. Approximately 32 percent of the catch was over 14 inches. Bluegills up to 8.3 inches were sampled with 26 percent over 6 inches. Walleye reproduction appeared to be very poor in 2005 with no young-of-year sampled during fall surveys. It appears that most of the adult walleye population is comprised of fish hatched from year-classes in the mid- to late-1990s. Only 11 adult walleyes were sampled in the fall survey and all were 14-plus inches. On a positive note, musky fishing has been and should continue to be very good. Anglers are reporting improved musky fishing with several 50-plus inch fish showing up in the catch. This past summer, DNR stocked 6,000 fall fingerling musky. In 2006, department staff are planning to conduct fyke netting surveys on Shawano Lake to obtain more comprehensive information on the entire fish community.



Graph showing walleye boomshocking catch from 1986 to 2005. Blue bars represent young of year (less than 10 inches) and yellow bars represent juvenile and adult- sized walleyes.

Wolf River (Outagamie, Waupaca, and Shawano counties)

DNR fisheries biologists are researching flathead catfish populations within the Wolf River system to document seasonal movement, habitat use, harvest, and population characteristics. Flathead catfish are a popular sportfish as well as important top predator -- most likely the largest predator -- in the system. Voluntary setline/bankpole angler catch, hoop nets, and electrofishing have been used to sample juvenile and adult flatheads. In 2005, DNR fisheries crews captured 528 flatheads during hoop net surveys near Fremont, Gills Landing and New London. Preliminary results indicate flatheads up to 47 inches (or 56 pounds) with 58 percent of the catch over 31 inches (or 16 pounds). In addition to collecting length and weight information, biologists are taking a sample of pectoral fin spines to determine fish age. Flatheads in the Wolf River are very long lived with some fish living 24 years or more. Growth was highly variable with most flatheads attaining 31 inches (or 16 pounds) in 10 to 14 years.



All flathead catfish are being tagged with a variety of tags to help us track them and gather information on harvest and population size. One tag, a PIT tag, is essentially a small microchip about the size of a grain of rice that is injected into the fleshy area around the base of the fishes head. Each PIT tag has a unique code that is read by a scanning device. Another tag, the T-bar tag, is an external tag that is gray, brown or green and resemble a 2-inch piece of spaghetti located near the fin along the top of the back. Each tag has a unique serial number stamped on it that identifies that fish and an address to send the tag to. Anglers should report tagged fish, along with catch date and location, tag number, length, whether the fish was kept or released, and angler's name and address to the address on the tag or (715) 526-4227. Anglers are asked to not remove tags from fish they release.

Another important aspect of the flathead catfish studies is to obtain information on seasonal movement and habitat use. Several different types of unique tags are being used to obtain this data. In 2004, 18 male flatheads were tagged with radio tags. These tags are surgically implanted into the flatheads' abdomens with a trailing antenna that protrudes from the body. Once tagged, biologists use radio receivers to track individual fish. Each tag emits a unique radio frequency. Interestingly, some of these fish have been found to move as far as 80 miles between winter and summer areas. In some cases, the fish returns to the same pool or log that it used the year before. We hope that this tracking information will provide important information on specific spawning and over-wintering habitat needs.



This past year a slightly different tag called a sonic tag was surgically implanted into nine female flatheads, allowing us to capitalize on the increasing capability and decreasing cost of tracking fish by sound instead of radio frequency. The sonic tags emit an acoustic signature specific to the individual fish. Fixed hydrophone receivers, essentially underwater microphones, are located throughout the Wolf River system and pick up the acoustic signals from the tagged flatheads as they swim by. These tags will

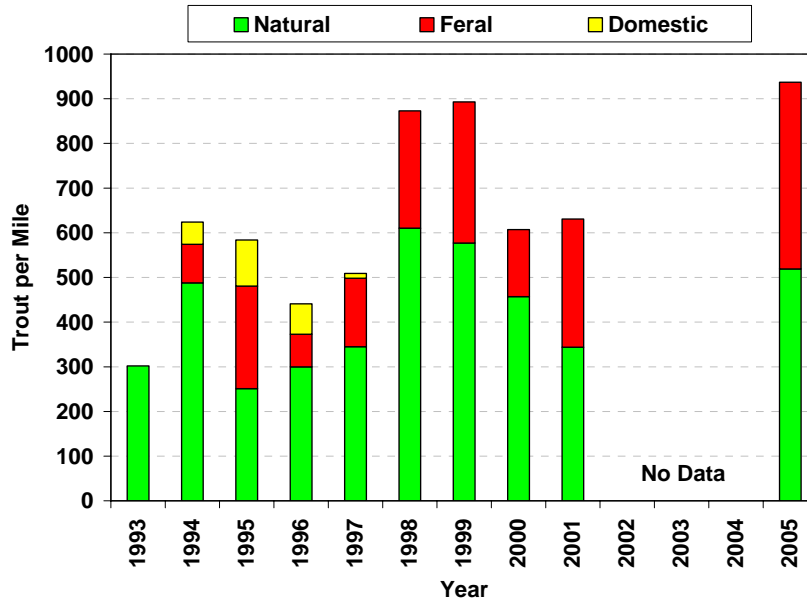


allow biologists to track fish up to four years and gather important information on seasonal movements. Preliminary data suggests that females exhibit some of the same movement patterns and habitat use as males. Biologists plan to use this information to identify critical habitats and direct future management of this important sportfish.

Left: Sonic tag being implanted into a female flathead catfish from the Wolf River as part of a DNR study.

Waupaca County

Stream electrofishing surveys in the Waupaca River in 2005 indicate that trout populations and size structure are improving. Young-of-year numbers were up 36 percent from the last time the river was surveyed and were 46 percent higher than the 10-year average. In addition, numbers of fish 12 inches and greater were 34 percent higher than that long-term average. DNR's wild trout program, which stocks trout that are the progeny of wild instead of domesticated trout, has been very important to bolstering trout populations in the Waupaca River. Annually, the river is stocked with 18,000 feral brown trout fingerlings. To date, stocked wild trout comprise almost 40 percent of the adult population.



Adult (< 6.0 inches) brown trout abundance in the Waupaca River from 1993 to 2005. Green bars represent natural trout abundance and red bars depict "Wild" feral trout.

Electrofishing surveys on other streams in Southern and Central Waupaca County show population density and size structure at or above average. Surveys in Shawano County show some decline in numbers which may be partly due to low water/flow conditions and warm summer temperatures experienced in 2005.

Al Niebur, Fisheries Biologist, Shawano



Brook trout from a Central Wisconsin trout stream in full spawning color.